SUMMARY OF EXHAUST QUALIFICATION WORK

Theme of the final qualifying work: "Symmetric probability model of remote mutual authentication of interacting objects for unprotected communication channels on the example of the Ministry of Labor, Employment and Social Development of the Republic of Ingushetia"

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Information about the contracting authority: "Ministry of Labor, Employment and Social Development of the Republic of Ingushetia". The main activity is: "State management of social programs". The Institution "Ministry of Labor of Ingushetia" has the status of an executive authority of the Republic of Ingushetia and is engaged in the implementation of state policy on the territory of the republic. The Ministry of Labor implements the functions of state administration in the spheres of labor activity, social protection of the population and its employment.

The relevance of the research topic: Information technology has penetrated so deeply into our lives that without them the existence of today's society is impossible to imagine.

In the modern world, perhaps, no structure can function without a developed information environment. The state understands this, and seeks to introduce various information services into state institutions.

The most important criterion for the "quality" of information is its integrity and accessibility. These conditions are ensured when building an information security system, during the survey and in the process of creating the main business processes.

It is necessary to apply a comprehensive approach, both in the creation of information security in military and strategic facilities, and on the objects that play a seemingly insignificant role in the information infrastructure of the country.

Solving the problem of remote authentication belongs to the category of primary tasks, the solution of which guarantees success in solving a number of applications related to the rapid transfer of confidential information over long distances through unprotected channels of communication on-line.

Targeted work: application of theoretical knowledge in practical activities and development of professional skills in the practical application of information protection protocols transmitted over unprotected communication channels.

Tasks:

• getting acquainted with the characteristics of the activity and the list of tasks to be solved in the course of its professional activities, related to the reliability of remote authentication procedures using unprotected communication channels;

• to study at the enterprise the system of protection of confidential information transmitted through open communication channels;

• develop proposals for improving the information and communication and technical support for information protection at the facility under investigation;

• verification of protocols for remote authentication, use to protect information in unprotected communication channels;

• We propose to implement a model of the remote authentication protocol of object links that are associated with open channels.

Theoretical and practical significance of the research:

The theoretical significance of this scientific research is the following:

• The identified problems and shortcomings of the integrated information protection system at the research site;

• Analyzed special literature and market research of software and hardware products in the field of information security;

• The information protection systems functioning on the object under investigation, as well as software and hardware to protect information;

• The main models and methods of remote authentication protocols oriented to work with open communication channels are analyzed.

Practical significance of the results:

analyzed and investigated the remote authentication algorithm, built on the basis of a symmetric probability model of cryptographic transformations.

Results of the research: The conclusion summarizes the work done and describes proposals for improving the integrated security system in this organization.

Recommendations: Finalize the symmetric probabilistic model of remote mutual authentication of objects for unprotected communication channels.